Observations of Occultations of Stars and Saturn by the Moon, made at the Royal Observatory, Greenwich, in the Year 1900.

(Communicated by the Astronomer-Royal.)

Day. 1900.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
Jan. 9	Disapp. 27 Arietis	Sheepshanks Equat.	55	Dark	9 15 2·38	A.C.
9 (a)	,, ,,	28-inch Equat.	670	,,	9 15 2·38	B.
Feb. 6	,, δ Arietis	,,	670	,,	8 35 20·94	B.
6	,, ,,	Sheepshanks Equat.	55	,,	8 35 20·71	WB.
6	,, ,,	Corbett Equat.	100	,,	8 35 20·34	HF.
6	,, ,,	Old Altazimuth	100	,,	8 35 21·05	S.
6	Reapp. ,,	,, ,,	100	Bright	9 25 29·35	S.
7 (b)	Disapp. A² Tauri	Sheepshanks Equat.	55	Dark	7 2 25·77	R.
April 4 (c)	,, o Tauri	Astrographic Equat.	225	,,	9 29 18·84	H.
4	,, ,,	Sheepshanks Equat.	55	,,	9 29 19·86	R.
May 7	,, 19 Sextantis	Old Altazimuth	100	,,	10 42 2·20	S.
15	Reapp. 15 Ophiuchi	Sheepshanks Equat.	100	,,	13 58 22·55	B.
June 2	Disapp. κ Cancri	Old Altazimuth	100	,,	8 31 35·36	H.
July 11	,, ξ² Sagittarii	Sheepshanks Equat.	55	,,	12 18 44·25	AC.
11	,, ,,	Astrographic Equat.	225	,,	12 18 44·24	S.

Day. 1900.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
Sept. 3 (d)	Disapp. Outer Edge of Saturn's Ring, 1st Limb	28-inch Equat.	470	Dark	7 14 59·55	L.
3 (e)	,,	Sheepshanks Equat.	120	,,	7 15 (9·10)	AC.
3	,,	Corbett Equat.	100	,,	7 15 2·55	B.
3	,,	Astrographic Equat.	225	,,	7 15 1·29	R.
3	,,	Old Altazimuth	100	,,	7 15 (8·54)	S.
3	,, Inner Edge of Saturn's Ring, 1st Limb	28-inch Equat.	470	,,	7 15 17·21	L.
3	,,	Corbett Equat.	100	,,	7 15 16·01	B.
3	,,	Astrographic Equat.	225	,,	7 15 16·25	R.
3	,,	Old Altazimuth	100	,,	7 15 (21·00)	S.
3	,, Saturn's Ball, 1st Limb	28-inch Equat.	470	,,	7 15 24·48	L.
3	,,	Sheepshanks Equat.	120	,,	7 15 27·04	AC.
3	,,	Corbett Equat.	100	,,	7 15 24·98	B.
3	,,	Astrographic Equat.	225	,,	7 15 26·22	R.
3	,,	Old Altazimuth	100	,,	7 15 (28·97)	S.
3	,, 2nd Limb	28-inch Equat.	470	,,	7 16 24·02	L.
3	,,	Sheepshanks Equat.	120	,,	7 16 (19·89)	AC.
3	,,	Corbett Equat.	100	,,	7 16 23·82	B.
3	,,	Astrographic Equat.	225	,,	7 16 23·56	R.
3	,	Old Altazimuth	100	,,	7 16 (28·80)	S.

Day. 1900.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
Sept. 3	Disapp.	28-inch Equat.	470	Dark	7 16 34·60	L.
3	"	Sheepshanks Equat.	120	"	7 16 35·85	A.C.
3 (e)	"	Corbett Equat.	100	"	7 16 38·78	B.
3	"	Astrographic Equat.	225	"	7 16 (44·01)	R.
3	"	Old Altazimuth	100	"	7 16 (42·76)	S.
3	"	28-inch Equat.	470	"	7 16 57·23	L.
3	"	Sheepshanks Equat.	120	"	7 16 56·79	A.C.
3	"	Corbett Equat.	100	"	7 16 56·73	B.
3	"	Astrographic Equat.	225	"	7 16 57·37	R.
3	"	Old Altazimuth	100	"	7 16 57·22	S.
3 (f)	Reapp.	Astrographic Equat.	120	Bright	8 10 10·39	R.
3	"	"	120	"	8 10 20·36	R.
3	"	28-inch Equat.[1]	470	"	8 10 47·33	L.
3	"	Astrographic Equat.	120	"	8 10 52·27	R.
3	"	28-inch Equat.	470	"	8 10 59·79	L.
3	"	Astrographic Equat.	120	"	8 11 4·24	R.
3 (f)	"	28-inch Equat.	470	"	8 11 14·26	L.
3	"	Astrographic Equat.	120	"	8 11 16·21	R.
3	"	Old Altazimuth	100	"	8 11 16·96	S.
4	Disapp. ξ_1 Sagittarii	28-inch Equat.	670	Dark	7 35 0·88	B.
4	"	Sheepshanks Equat.	120	"	7 35 0·25	H.F.
4	"	Astrographic Equat.	225	"	7 35 0·93	S.

Phenomenon groupings (bracketed):
- Inner Edge of Saturn's Ring, 1st Limb
- Ring, 2nd Limb
- Outer Edge of Saturn's Ring, 2nd Limb
- Inner Edge of Saturn's Ring, 1st Limb
- Saturn's Ball, 1st Limb
- 2nd Limb
- Inner Edge of Saturn's Ring, 2nd Limb
- Outer Edge of Saturn's Ring, 2nd Limb

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
Sept. 4 (e)	Reapp. ξ' Sagittarii	28-inch Equat.	670	Bright	8 49 17·12	B.
4 (g)	”	Sheepshanks Equat.	120	”	8 49 (27·81)	HF.
4	”	Astrographic Equat.	225	”	8 49 15·69	S.
12	Disapp. π Arietis	”	225	”	12 35 28·64	PM.
13	” 13 Tauri	”	225	”	9 42 44·36	S.
13	” 14 Tauri	”	225	”	10 14 12·30	S.
13 (g)	Reapp. ”	”	225	Dark	11 8 (56·47)	S.
Oct. 3	Disapp. B.A.C. 7063	Sheepshanks Equat.	120	”	8 53 43·85	AC.
3	” ”	Astrographic Equat.	225	”	8 53 42·90	S.
8 (g)	Reapp. W.B.I. 209	Sheepshanks Equat.	120	”	13 19 (20·74)	H.

Notes.

The apertures of these instruments are as follows: 28-inch Equatorial, 28 inches; Astrographic Equatorial (Guiding Telescope), 10 inches; Sheepshanks, 6·7 inches; Corbett, 6·5 inches; Old Altazimuth, 4 inches.

(*a*) Instantaneous.

(*b*) Misty. Star faded gradually.

(*c*) The Moon's dark limb was easily visible. The star appeared projected within limb before disappearance.

(*d*) Occultation of Saturn. The planet was very tremulous before the occultation, but definition improved somewhat during disappearance. The times noted are those of the elliptical outlines of the ring and ball with the limb of the Moon. The times enclosed within brackets are presumably erroneous.

(*e*) The observer noted 'Probably late.'

(*f*) Cloudy. Saturn very faint and unsteady. Not considered a good observation.

(*g*) The time noted was considered uncertain, and is evidently erroneous.

The initials L., H., AC., B., WB., R., HF., S., PM., are those of Mr. Lewis, Mr. Hollis, Mr. Crommelin, Mr. Bryant, Mr. Bowyer, Mr. Rendell, Mr. Furner, Mr. Showell, and Mr. Melotte respectively.

Royal Observatory, Greenwich:
1901 January 11.

Observations of the Solar Eclipse of 1900 May 28, made at the Royal Observatory, Greenwich.

(*Communicated by the Astronomer-Royal.*)

Owing to clouds the first contact could not be observed. There were, however, frequent clear intervals during the eclipse, and observations of limbs and cusps in Azimuth and Zenith Distance were made with the New Altazimuth (1) in Azimuth 70° West, (2) in the Prime Vertical, as follows:—

Azimuth 70° W.

Day.	Mean Solar Time.	Object.	Observed Az. or Z.D.	Secs. of Tab. A.Z. or Z.D.	Error of Tab. Az. or Z.D.	Observer.
	h m s		° ′ ″	″	″	
May 28	3 9 20·64	N. Cusp Azimuth	Az. 69 51 24·87	Az. 24·63	−0·24	HF.
	3 9 53 53	N. Cusp Z.D.	Z.D. 47 50 18·95	Z.D. 18·73	−0·22	,,
	3 11 12·63	S. Cusp Azimuth	Az. 69 50 48·28	Az. 48·29	+0·01	,,
	3 11 46·08	S. Cusp Z.D.	Z.D. 48 15 53·18	Z.D. 55·48	+2·30	,,
	3 12 42·06	⊙ Second Limb	Az. 69 59 19·23	Az. 16·48	−2·75	,,

Prime Vertical.

Day.	Mean Solar Time.	Object.	Observed Az. or Z.D.	Secs. of Tab. A.Z. or Z.D.	Error of Tab. Az. or Z.D.	Observer.
	h m s		° ′ ″	″	″	
May 28	4 42 28·93	⊙ First Limb	Az. 89 59 32·60	Az. 30·17	−2·43	H.F.
	4 43 37·57	⊙ Lower Limb	Z.D. 62 18 33·09	Z.D. 33·49	+0·40	,,
	4 44 38·87	☽ First Limb	Az. 89 57 8·06	Az. 6·63	−1·43	,,
	4 45 7·78	N. Cusp Azimuth	Az. 90 1 46·21	Az. 40·44	−5·77	,,
	4 45 48·72	S. Cusp Z.D.	Z.D. 62 27 55·02	Z.D. 50·02	−5·00	,,
	4 46 11·83	S. Cusp Azimuth	Az. 90 8 7·46	Az. 5·76	−1·70	,,